Amendments To The Claims

The listing of claims presented below will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1-5. (cancelled)

6. (new) A synchronizing circuit synchronizing a predetermined code with first and second codes different in phase by 1/2 chips, comprising:

a code generating part generating a 0 chip delayed C/A code, a 1/2 chip delayed C/A code, a -1/2 chip delayed C/A code and a -1 chip delayed C/A code;

a first switching part receiving the -1/2 chip delayed C/A code and the -1 chip delayed C/A code, and selectively outputting one thereof;

a second switching part receiving the first and second codes, and selectively outputting one thereof;

a third switching part receiving the -1 chip delayed C/A code and the 1/2 chip delayed C/A code, and selectively outputting one thereof;

a first correlation detecting part detecting a correlation between the output of said first switching part and the first code;

a second correlation detecting part detecting a correlation between the 0 chip delayed C/A code and the first code;

a third correlation detecting part detecting a correlation between the output of said second switching part and the output of said third switching part; and

a fourth correlation detecting part detecting a correlation between the second code and the 0 chip delayed C/A code,

wherein:

when search operation is performed, said first switching part outputs the −1 chip delayed C/A code; said first correlation detecting part detects a correlation between the first code and the −1 chip delayed C/A code; said second switching part outputs the second code and said third switching part outputs the −1 chip delayed C/A code; and said third correlation detecting part detects a correlation between the second code and the −1 chip delayed C/A code; while,

when locking operation is performed, said first switching part outputs the −1/2 chip delayed C/A code; said first correlation detecting part detects a correlation between the first code and the −1/2 chip delayed C/A code; said second switching part outputs the first code and said third switching part outputs the 1/2 chip delayed C/A code; and said third correlation detecting part detects a correlation between the first code and the 1/2 chip delayed C/A code.

7. (new) A GPS receiving apparatus comprising:

a receiving unit extracting C/A codes from given GPS signals, and outputting data according to time difference between the different C/A codes; and

an information processing device, according to the output data of the receiving unit, obtaining position information, wherein:

said receiving unit comprises the synchronizing circuit claimed in Claim 6

and a code shifting part shifting the phase of the delayed code from the code generating part by a predetermined number of chips according to the detection results of said first and third correlation detecting parts.